Serial no. 10/759,701 Filed 1/18/2004

Attorney docket no. 1034.001US1

In the claims

1. (currently amended) A computer-implemented method comprising: receiving a first recipe;

determining one or more second recipes that are similar to the first recipe <u>based one or</u> more factors, including a weighted ingredient coefficient taking into account sums of differences <u>between relative contributions of individual ingredients between the first recipe and each second</u> recipe and between each second recipe and the first recipe; and,

outputting the one or more second recipes,

wherein the weighted ingredient coefficient as to the first recipe and a particular second recipe is defined as and determined as a first constant from which a second constant multiplied by the sums of differences between the relative contributions of the individual ingredients between the first recipe and the particular second recipe and between the particular second recipe and the first recipe is subtracted.

wherein the greater the weighted ingredient coefficient as to the first recipe and the particular second recipe is, the more similar the particular second recipe is to the first recipe.

- 2. (cancelled)
- 3. (cancelled)
- 4. (currently amended) The method of claim [[3]] 1, wherein determining the one or more second recipes that are similar to the first recipe based at least on the weighted ingredient coefficient comprises:

for each of a plurality of third recipes,

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for each of one or more ingredients within the first recipe, determining a first difference between a contribution of the ingredient within the first recipe relative to all the ingredients within the first recipe and a contribution of the ingredient within the third recipe relative to all the ingredients within the third recipe;

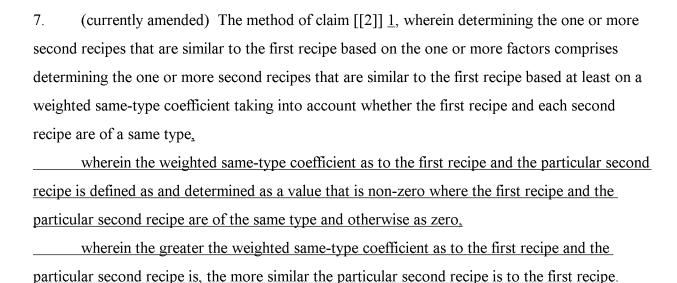
for each of one or more ingredients within the third recipe, determining a second difference between a contribution of the ingredient within the third recipe relative to all the ingredients within the third recipe and a contribution of the ingredient within the first recipe relative to all the ingredients within the third recipe that are also in the first recipe;

adding the first difference for each ingredient within the first recipe to the second difference for each ingredient within the third recipe to yield an ingredient residuals sum for the third recipe; and,

using the ingredient residuals sum as a factor upon which basis the one or more second recipes that are similar to the first recipe are determined as one or more of the plurality of third recipes.

- 5. (original) The method of claim 4, wherein the first difference is an absolute difference and the second difference is an absolute difference.
- 6. (original) The method of claim 4, wherein determining the one or more second recipes that are similar to the first recipe based at least on the weighted ingredient coefficient further comprises, for each third recipe, subtracting the ingredient residuals sum from a constant to yield a difference, and multiplying the difference by a weight to yield the weighted ingredient coefficient upon which basis the one or more second recipes that are similar to the first recipe are determined as the one or more of the plurality of third recipes.

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8. (original) The method of claim 7, wherein determining the one or more second recipes that are similar to the first recipe based at least on the weighted same-type coefficient comprises:

for each of a plurality of third recipes, determining the weighted same-type coefficient for each third recipe as non-zero where the first recipe and the third recipe are of the same type and as zero where the first recipe and the third recipe are not of the same type; and,

utilizing the weighted same-type coefficient as a factor upon which basis the one or more second recipes that are similar to the first recipe are determined as one or more of the plurality of third recipes.

9. (currently amended) The method of claim [[2]] 1, wherein determining the one or more second recipes that are similar to the first recipe based on the one or more factors comprises determining the one or more second recipes that are similar to the first recipe based at least on a weighted same-title words coefficient taking into account an extent to which non-common title words of the first recipe are also within a title of each second recipe.

wherein the weighted same-title words coefficient as to the first recipe and the particular

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second recipe is defined as and determined as a third constant multiplied by a percentage of the non-common title words of the first recipe that are also within the title of the particular second recipe.

wherein the greater the weighted same-title words coefficient as to the first recipe and the particular second recipe is, the more similar the particular second recipe is to the first recipe.

10. (original) The method of claim 9, wherein determining the one or more second recipes that are similar to the first recipe based at least on the weighted same-title words coefficient comprises:

for each of a plurality of third recipes, determining the weighted same-title words coefficient as a percentage of the non-common title words of the first recipe that are within the title of the third recipe, multiplied by a weight; and,

utilizing the weighted same-title words coefficient as a factor upon which basis the one or more second recipes that are similar to the first recipe are determined as one or more of the plurality of third recipes.

11. (currently amended) The method of claim [[2]] 1, wherein determining the one or more second recipes that are similar to the first recipe based on the one or more factors comprises determining the one or more second recipes that are similar to the first recipe based at least on a weighted shared-keywords coefficient taking into account a number of shared keywords between the first recipe and each second recipe,

wherein the weighted shared-keywords coefficient as to the first recipe and the particular second recipe is defined as and determined as a third constant multiplied by a percentage of the shared keywords between the first and the particular second recipes to a total number of unique keywords between the first and the particular second recipes,

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wherein the greater the weighted shared-keywords coefficient as to the first recipe and the particular second recipe is, the more similar the particular second recipe is to the first recipe.

12. (original) The method of claim 11, wherein determining the one or more second recipes that are similar to the first recipe based at least on the weighted shared-keywords coefficient comprises:

for each of a plurality of third recipes, determining the weighted shared-keywords coefficient as a percentage of keywords of the first recipe that are also keywords of the third recipe divided by a total number of unique keywords between the first recipe and the third recipe, multiplied by a weight; and,

using the weighted shared-keywords coefficient as a factor upon which basis the one or more second recipes that are similar to the first recipe are determined as one or more of the plurality of third recipes.

13. (currently amended) The method of claim [[2]] 1, wherein determining the one or more second recipes that are similar to the first recipe based on the one or more factors comprises determining the one or more second recipes that are similar to the first recipe based at least on a weighted shared-ingredients coefficient taking into account an extent to which ingredients of the first recipe are also used within each second recipe and an extent to which ingredients of each second recipe are also used within the first recipe.

wherein the weighted shared-ingredients coefficient as to the first recipe and the particular second recipe is defined and determined as a third constant multiplied by a percentage of a number of the ingredients of the first recipe that are also within the particular second recipe plus a number of the ingredients of the particular second recipe that are also within the first recipe to a total number of ingredients between the first recipe and the particular second recipe,

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wherein the greater the weighted shared-ingredients coefficient as to the first recipe and the particular second recipe is, the more similar the particular second recipe is to the first recipe.

14. (original) The method of claim 13, wherein determining the one or more second recipes that are similar to the first recipe based on at least the weighted shared-ingredients coefficient comprises:

for each of a plurality of third recipes, determining the weighted shared-ingredients coefficient as a percentage of a number of the ingredients of the first recipe that are also ingredients of the third recipe plus a number of the ingredients of the third recipe that are also ingredients of the first recipe, divided by a total number of ingredients between the first recipe and the third recipe, multiplied by a weight; and,

utilizing the weighted shared-ingredients coefficient as a factor upon which basis the one or more second recipes that are similar to the first recipe are determined as one or more of the plurality of third recipes.

- 15. (original) The method of claim 1, wherein determining the one or more second recipes that are similar to the first recipe comprises determining a numerical similarity value between the first recipe and each of a plurality of third recipes and denoting a number of the plurality of third recipes having highest numerical similarity values as the second recipes.
- 16. (original) The method of claim 1, wherein determining the one or more second recipes that are similar to the first recipe comprises determining a numerical similarity value between the first recipe and each of a plurality of third recipes and denoting each third recipe having a numerical similarity value greater than a threshold as one of the second recipes.
- 17. (currently amended) A computer-implemented method comprising:

receiving a first recipe;

determining one or more second recipes that are similar to the first recipe by comparing the first recipe to a plurality of third recipes based on one or more factors such that each third recipe is assigned a numerical similarity value indicating similarity to the first recipe; and,

outputting the one or more second recipes as one or more of the plurality of third recipes having highest numerical similarity values,

wherein at least one of the factors are selected from the group of factors comprising:

a weighted ingredient coefficient taking into account sums of differences between relative contributions of individual ingredients between the first recipe and each third recipe and between each third recipe and the first recipe.

the weighted ingredient coefficient as to the first recipe and a particular third recipe defined as and determined as a first constant from which a second constant multiplied by the sums of differences between the relative contributions of the individual ingredients between the first recipe and the particular third recipe and between the particular third recipe and the first recipe is subtracted, such that the greater the weighted ingredient coefficient as to the first recipe and the particular third recipe is, the more similar the particular third recipe is to the first recipe;

a weighted same-type coefficient taking into account whether the first recipe and each third recipe are of a same type,

the weighted same-type coefficient as to the first recipe and the particular third recipe defined as and determined as a value that is non-zero where the first recipe and the particular third recipe are of the same type and otherwise as zero, such that the greater the weighted same-type coefficient as to the first recipe and the particular third recipe is, the more similar the particular third recipe is to the first recipe;

a weighted same-title words coefficient taking into account an extent to which non-common title words of the first recipe are also within a title of each third recipe.

the weighted same-title words coefficient as to the first recipe and the

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particular third recipe defined as and determined as a third constant multiplied by a percentage of the non-common title words of the first recipe that are also within the title of the particular third recipe, such that the greater the weighted same-title words coefficient as to the first recipe and the particular third recipe is, the more similar the particular third recipe is to the first recipe;

a weighted shared-keywords coefficient taking into account a number of shared keywords between the first recipe and each second recipe.

the weighted shared-keywords coefficient as to the first recipe and the particular third recipe defined as and determined as a fourth constant multiplied by a percentage of the shared keywords between the first and the particular third recipes to a total number of unique keywords between the first and the particular third recipes, such that the greater the weighted shared-keywords coefficient as to the first recipe and the particular third recipe is, the more similar the particular third recipe is to the first recipe; and,

a weighted shared-ingredients coefficient taking into account an extent to which ingredients of the first recipe are also used within each second recipe and the extent to which ingredients of each second recipe are also used within the first recipe.

the weighted shared-ingredients coefficient as to the first recipe and the particular third recipe defined and determined as a fifth constant multiplied by a percentage of a number of the ingredients of the first recipe that are also within the particular third recipe plus a number of the ingredients of the particular third recipe that are also within the first recipe to a total number of ingredients between the first recipe and the particular third recipe, such that the greater the weighted shared-ingredients coefficient as to the first recipe and the particular third recipe is, the more similar the particular third recipe is to the first recipe.

18. (original) The method of claim 17, wherein the numerical similarity value of each third recipe is determined by summing together the group of factors for the third recipe, such that outputting the one or more second recipes as the one or more of the plurality of third recipes

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having the highest numerical similarity values comprises outputting the one or more second recipes as a number of the one or more of the plurality of third recipes having the highest numerical similarity values.

- 19. (original) The method of claim 17, wherein the numerical similarity value of each third recipe is determined by summing together the group of factors for the third recipe, such that outputting the one or more second recipes as the one or more of the plurality of third recipes having the highest numerical similarity values comprises outputting the one or more second recipes having numerical similarity values greater than a threshold.
- 20. (currently amended) An article of manufacture comprising:

a computer-readable medium; and,

means in the medium for determining for a first recipe one or more second recipes that are similar to the first recipe by comparing the first recipe to a plurality of third recipes based at least on a weighted ingredient coefficient taking into account sums of differences between relative contributions of individual ingredients between the first recipe and each third recipe and between each third recipe and the first recipe.

wherein the weighted ingredient coefficient as to the first recipe and a particular third recipe is defined as and determined as a first constant from which a second constant multiplied by the sums of differences between the relative contributions of the individual ingredients between the first recipe and the particular third recipe and between the particular third recipe and the first recipe is subtracted,

wherein the greater the weighted ingredient coefficient as to the first recipe and the particular third recipe is, the more similar the particular third recipe is to the first recipe.